

REMARKS

Prior to this Amendment, claims 18-34 were pending in this application. In the final Office Action mailed September 29, 2009 ("Final Office Action"), claims 18-24 and 30-32 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,411,412 ("Jiang 1") (and U.S. Patent No. 6,288,811 ("Jiang 2"), which was incorporated by reference within Jiang 1); claim 25 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Jiang 1 in view of U.S. Patent No. 7,263,091 ("Woo"); claims 26-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Jiang 1 in view of Woo, and further in view of U.S. Patent No. 6,256,125 ("Uehara"); and claim 29 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Jiang 1 in view of Uehara. The Final Office Action also indicated that claims 33 and 34 would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

Applicant thanks the Examiner for the indication of the allowable subject matter recited in claims 33 and 34. By this Amendment, Applicant proposes amending claims 18, 25, 30, and 31. Applicant also proposes adding new claims 35 and 36. Applicant notes that new independent claim 35 incorporates the subject matter of claim 33 into the originally-presented version of independent claim 1, the combination of which the Examiner indicated as being allowable in the Office Action mailed March 3, 2009. Applicant submits, therefore, that new independent claim 35 and claim 36 that depends therefrom, are in condition for immediate allowance. No new matter will be added by

entry of this Amendment. Upon entry of this Amendment, claims 18-36 will be pending in this application.

I. Claim Rejection Under 35 U.S.C. § 102(b)

The Final Office Action rejected claims 18-24 and 30-32 under 35 U.S.C. § 102(b) as being anticipated by Jiang 1. Claims 18, 30, and 31 are the only independent claims included in this claim rejection, and Applicant traverses the rejection of independent claims 18, 30, and 31 under 35 U.S.C. § 102(e) based on Jiang 1 at least because Jiang 1 fails to disclose all of the subject matter recited in each of those claims.

A. Amended Independent Claim 18

Independent claim 18 as proposed to be amended is directed, among other things, to "a packet and optical routing equipment, comprising . . . a packet forwarding stage connected between said optical packet port and said optical forwarding and multiplexing stage, the packet forwarding stage comprising a packet and optical control plane configured to generate control signals for said optical input and output, said optical forwarding and multiplexing stage, said interface converter, said electric switching unit, and said non-packet and packet optical/electric converters" Jiang 1 fails to disclose at least this recited subject matter, which prior to entry of this Amendment After Final was recited in dependent claim 25.

With respect to claim 25, the Final Office Action asserts that

Jiang discloses a packet and optical control plane configured to generate control signals for said optical input and output, said optical forwarding and multiplexing stage, said interface converter, said electric switching unit, and said non-packet and packet optical/electric converters (while not

shown in the figures, it is inherent that the ADM, converters, and switching unit disclosed by Jiang have a control plane so that the signals can be routed to their proper destination.)

Final Office Action at 12. As best understood, the Final Office Action is apparently relying in the principle of inherency to improperly assert that (1) Jiang's alleged disclosure of ADM, converters, and switching unit require a common "control plane so that the signals can be routed to their proper destination" and (2) that this hypothetical "control plane" be a common control unit for generating control signals for each of "[an] optical input and output, [an] optical forwarding and multiplexing stage, [an] interface converter, [an] electric switching unit, said non-packet and packet optical/electric converters," as recited in Applicant's claim 25 and as proposed to be added to independent claim 18. Applicant respectfully disagrees with the Final Office Action's assertions.

The Manual of Patent Examining Procedure ("M.P.E.P.") mandates that the Office Action "must provide rationale or evidence tending to show inherency." M.P.E.P. § 2112(IV). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted). The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

Applicant respectfully submits that the Office Action has failed to provide any rationale or evidence showing inherency. For this reason alone, the inherency assertions made in the Office Action are improper.

Moreover, Applicant notes that regardless of whether either of the features alleged in assertions (1) or (2) above *may* be present, the Court of Appeals for the Federal Circuit has made it clear that such “probabilities and possibilities” are not sufficient to establish inherency. Rather, the extrinsic evidence “must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.” *Continental Can Co., USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991).

Here, it is not clear from Jiang 1 that the “ADM, converters, and switching unit” of Jiang 1 require a common “control plane so that the signals can be routed to their proper destination.” Indeed, it is entirely possible that each of these devices generates its own control signals and, as such, does not necessarily require a common “control plane.”

Nor is it clear from Jiang 1 that that this hypothetical “control plane” be a common control unit for generating control signals for each of “[an] optical input and output, [an] optical forwarding and multiplexing stage, [an] interface converter, [an] electric switching unit, said non-packet and packet optical/electric converters,” as recited in Applicant’s claim 25 and proposed to be added to independent claim 18.

For at least these reasons, Applicant respectfully submits that the Final Office Action’s reliance on the principle of inherency is improper and should be withdrawn. As such, Jiang 1 fails to expressly or inherently disclose at least, “a packet and optical

routing equipment, comprising . . . a packet forwarding stage connected between said optical packet port and said optical forwarding and multiplexing stage, the packet forwarding stage comprising a packet and optical control plane configured to generate control signals for said optical input and output, said optical forwarding and multiplexing stage, said interface converter, said electric switching unit, and said non-packet and packet optical/electric converters,” as proposed to be added to Applicant’s independent claim 18. For at least this reason, the 35 U.S.C. § 102(b) rejection with respect to independent claim 18 based on Jiang 1 is improper and should be withdrawn. Further, claims 19-24 depend, either directly or indirectly, from independent claim 18 and would be allowable for at least the same reason that amended independent claim 18 would be allowable. Therefore, Applicant respectfully requests reconsideration and withdrawal of the § 102(b) rejection with respect to claims 18-24.

B. Amended Independent Claim 30

Independent claim 30 as proposed to be amended would recite, among other things, “an optical network of wavelength multiplexing type, comprising a plurality of packet and optical routing equipment and a plurality of optical connections extending between pairs of packet and optical routing equipment, each said packet and optical routing equipment comprising: a packet forwarding stage connected between said optical packet port and said optical forwarding and multiplexing stage, the packet forwarding stage comprising a packet and optical control plane configured to generate control signals for said optical input and output, said optical forwarding and multiplexing stage, said interface converter, said electric switching unit, and said non-packet and packet optical/electric converters” As noted above with regard to amended

independent claim 18, Jiang 1 fails to disclose or render obvious at least this recited subject matter. For at least this reason, the 35 U.S.C. § 102(b) rejection with respect to independent claim 30, as proposed to be amended, based on Jiang 1 would also be improper and should be withdrawn.

C. Amended Independent Claim 31

Independent claim 31 as proposed to be amended would be directed to a method for packet and optical signal routing, comprising, among other things, "generating, at a packet and optical control plane, control signals for an optical input and output, the optical forwarding and multiplexing stage, the interface converter, the electric switching unit, and the non-packet and packet optical/electric converters." Jiang 1 fails to disclose or render obvious at least this recited subject matter.

As noted above with respect to amended independent claim 18, Jiang 1 fails to disclose or render obvious at least a common control plane for "generating, at a packet and optical control plane, control signals for an optical input and output, the optical forwarding and multiplexing stage, the interface converter, the electric switching unit, and the non-packet and packet optical/electric converters." For at least this reason, the 35 U.S.C. § 102(b) rejection with respect to independent claim 30, as proposed to be amended, based on Jiang 1 is improper and should be withdrawn. Further, claim 32 depends from independent claim 31 and should be allowable for at least the same reason that amended independent claim 31 would be allowable.

II. Claim Rejections Under 35 U.S.C. § 103(a)

A. Dependent Claim 25

Dependent claim 25 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Jiang 1 in view of Woo. Dependent claim 25 depends from independent claim 18, which is allowable over Jiang 1 after entry of this Amendment for at least the reasons outlined above. Woo, which was cited only for its purported disclosure of a forwarding engine coupled between an electronic switching unit and a packet optical/electrical converter, does not remedy the deficiencies of Jiang 1 outlined above. Therefore, the 35 U.S.C. § 103(a) rejection of dependent claim 25 is improper and should be withdrawn.

Because Woo 1) fails to disclose or render obvious all of the subject matter of independent claim 18 (from which dependent claim 25 depends), the 35 U.S.C. § 103(a) rejection of this claim based on Jiang 1 and Woo cannot be maintained and should be withdrawn.

B. Dependent Claims 26-28

Dependent claims 26-28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Jiang 1 in view of Woo, and further in view of Uehara. Each of dependent claims 26-28 depends indirectly from independent claim 18, which is allowable over Jiang 1 after entry of this Amendment for at least the reasons outlined above. Woo, which was cited only for its purported disclosure of a forwarding engine coupled between an electronic switching unit and a packet optical/electrical converter, does not remedy the deficiencies of Jiang 1 outlined above. Uehara, which was cited only for its purported disclosure of various aspects of channel termination units, also fails to remedy the deficiencies of the combination of Jiang 1 and Woo. Therefore, the

35 U.S.C. § 103(a) rejection of dependent claims 26-28 is improper and should be withdrawn.

C. Dependent Claim 29

Dependent claim 29 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Jiang 1 in view of Uehara. Dependent claim 29 depends from independent claim 18, which is allowable over Jiang 1 after entry of this Amendment for at least the reasons outlined above. Uehara, which was cited only for its purported disclosure of an ADM switching unit connected to an interface converter and a multiplexing/demultiplexing unit, does not remedy the deficiencies of Jiang 1 outlined above. Therefore, the 35 U.S.C. § 103(a) rejection of dependent claims 29 is improper and should be withdrawn.

III. New Claims 35 and 36

As noted above, new independent claim 35 incorporates the subject matter of claim 33 into the originally-presented version of independent claim 1, the combination of which the Examiner indicated as being allowable in the Office Action mailed March 3, 2009. Applicant respectfully submits, therefore, that new independent claim 35, and claim 36 that depends therefrom, are in condition for immediate allowance.

IV. Conclusion

Applicant respectfully requests that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing claims 18-36 in condition for allowance. Applicant submits that the proposed amendments of claims 18, 25, 30, and 31 and the addition of new claims 35 and 36 do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, since all of the elements and their

relationships claimed were either earlier claimed, inherent in the claims as examined, or dependent upon a claim containing subject matter indicated in the Final Office Action as allowable. Therefore, this Amendment should allow for immediate action by the Examiner.

Furthermore, Applicant respectfully points out that the Final Office Action presented some new arguments as to the application of the art against Applicant's invention. It is respectfully submitted that the entering of the proposed Amendment would allow the Applicant to reply to the final rejections and place the application in condition for allowance.

Finally, Applicant submits that the entry of the proposed Amendment would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims.

In view of the foregoing remarks, Applicant submits that this claimed invention, as amended, is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicant therefore requests entry of this Amendment, reconsideration and reexamination of the application, and timely allowance of pending claims 18-36.

The Final Office Action contains characterizations and assertions regarding the claims and the cited art with which Applicant does not necessarily agree. Unless expressly noted otherwise, Applicant respectfully declines to automatically subscribe to any characterizations or assertions included in the Final Office Action.

If the Examiner believes that a conversation might expedite prosecution of this application, the Examiner is cordially invited to call Applicant's undersigned representative.

Please grant any extensions of time required to enter this Amendment and charge any additional required fees to Deposit Account 06-0916.

Respectfully submitted,

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